

12-29-99

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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	Total Pages	28
First Named Inventor or Application Identifier		
ROBERT M. FOUS		
Express Mail Label No.	EM0453740 US	

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO: Assistant Commissioner for Patents
Box Patent Application
Washington, DC 20231

1. ☒ Fee Transmittal Form
(Submit an original, and a duplicate for fee processing)
2. ☒ Specification [Total Pages 12]
(preferred arrangement set forth below)
 - Descriptive title of the invention
 - Cross References to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to Microfiche Appendix
 - Background of the invention
 - Brief Summary of the invention
 - Brief Description of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
3. ☒ Drawing(s) (35 USC 113) [Total Sheets 2]
4. Oath or Declaration [Total Pages 2]
 - a. ☒ Newly executed (original or copy)
 - b. ☐ Copy from a prior application (37 CFR 1.63(d))
(for continuation/divisional with Box 17 completed)
[Note Box 5 below]
 - i. ☐ DELETION OF INVENTOR(S)
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
5. ☐ Incorporation By Reference (useable if Box 4b is checked)
The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.

6. ☐ Microfiche Computer Program (Appendix)
7. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
 - a. ☐ Computer Readable Copy
 - b. ☐ Paper Copy (identical to computer copy)
 - c. ☐ Statement verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

8. ☐ Assignment Papers (cover sheet & document(s))
9. ☐ 37 CFR 3.73(b) Statement (when there is an assignee) ☐ Power of Attorney
10. ☐ English Translation Document (if applicable)
11. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
12. ☐ Preliminary Amendment
13. ☒ Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)
14. ☒ Small Entity Statement filed in prior application, Status still proper and desired
15. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. ☐ Other:

17. If a CONTINUING APPLICATION, check appropriate box and supply the requisite information:
☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No: _____/_____

18. CORRESPONDENCE ADDRESS

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(Insert Customer No. or Attach bar code label here)

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**VERIFIED STATEMENT CLAIMING SMALL ENTITY STATUS
(37 CFR 1.9(f) & 1.27(b))—INDEPENDENT INVENTOR**

Docket Number (Optional)

Applicant or Patentee: ROBERT M. FOVSApplication or Patent No.: UTILITY PATENT

Filed or Issued: _____

Title: ECONOMIC FIELDING GLOVE

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees to the Patent and Trademark Office described in:

☒ the specification filed herewith with title as listed above.☐ the application identified above.☐ the patent identified above.

I have not assigned, granted, conveyed, or licensed, and am under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention to any person who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern, or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

☒ No such person, concern, or organization exists.☐ Each such person, concern, or organization is listed below.

Separate verified statements are required from each named person, concern, or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

ROBERT M. FOVS

NAME OF INVENTOR

NAME OF INVENTOR

NAME OF INVENTOR

Rlt M. Fovs

Signature of inventor

Signature of inventor

Signature of inventor

12/22/99

Date

Date

Date

ERGONOMIC FIELDING GLOVE

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U. S. Patent Application of:

Robert M. Fous

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Date of Deposit: 12/27/99

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ROBERT M. FOUS

(Typed or printed name of person mailing paper or fee)

Rlt M. Fous

(Signature of person mailing paper or fee)

Ergonomic fielding glove

This application is based on the provisional application titled: Two finger
baseball/softball fielding glove, file dated 02/04/99, application number: 60/118,543

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BACKGROUND OF THE INVENTION

This invention relates generally to the field of athletic equipment, and more
particularly to an ergonomic fielding glove to be used in sports such as baseball,
10 softball or the like.

Traditional four finger and three finger baseball or softball fielding gloves are
designed along the form of an open hand. The glove is made with an outer shell
and an inner compartment that contains the hand and positions it within the glove
with the fingers extending into the finger slots of the outer shell. If you remove the
15 glove from the hand, and view the hand as it was positioned in the glove, the thumb
of the hand is rotated forward towards the palm at approximately 45 degrees from
the plane of the hand and fingers. The fourth finger is also drawn forward slightly,
positioned so that the thumb and fourth finger, when drawn towards each other, act
to close the outer, vertical edges of the glove. The first, second and third fingers of
20 the hand within the glove can close down around a ball, with a small amount of force
but have little effect on the actual closing of the glove's outer vertical edges. The
action of closing the glove's outer vertical edges, seals the ball inside the glove, after
it is caught. This action is similar to closing a bare hand around a round object. The
thumb and fourth finger close towards each other around the outside of the ball, the

three fingers between the thumb and fourth finger close over the top. This limits the main force of closure to the thumb and the fourth, or smallest finger.

The positioning of the hand within the previously designed three or four fingered baseball/softball fielding gloves, overall, forms a pocket in the palm of the hand. Within the glove the palm of the hand is centered in the pocket of the glove. Between the valley of the thumb slot and index or first finger slot of the outer shell of the glove is the web. The fixed angle between the thumb and index finger within the outer shell of the glove is approximately 55 degrees in a traditional baseball/softball fielding glove.

In these previous fielding glove designs, the only surface area of the glove where the hand is not exposed to the force of the ball striking it is the web and the extended length of each of the glove's fingers. The palm of the glove and the web are the area where most of the balls are caught within the glove. The ball is either caught entirely in the pocket, or strikes the pocket and glances up into the web, or can be caught entirely in the web. A high percentage of time the ball strikes the pocket, and consequently the palm of the hand and fingers. Players wearing a previously designed glove frequently experience bruises, swelling, pain, and in some cases more serious damage from the impact of the ball striking the glove in the pocket area. Fielders wearing these previously designed gloves often removed their index finger from within the index finger slot and placed it outside the glove, against the back of the index finger slot, to put a little more padding between their finger and the impact of the ball striking the glove. Eventually manufacturers began cutting a hole in the back of the index finger slot to accommodate removal of the index finger

from within the slot. Various padded inserts have been used to try to reduce the impact of a ball striking the pocket, and consequently the palm of the hand.

In previous baseball/softball fielding glove designs the inside of the wrist is exposed beneath the heel of the glove, below the palm. Fielders wearing a glove without wrist protection often have the experience where a ball takes an unexpected hop and instead of landing in the glove, impacts the inside of the wrist. The force of the ball impacting the inside of the wrist can be so great that it imprints the wrist with the outline of the seams of the ball after such an incident as well as attendant pain and bruising.

SUMMARY OF THE INVENTION

The primary object of the invention is to increase the closing pressure of a fielding glove catching a ball, decreasing the ball's tendency to pop loose when fielded or applying a tag to a base runner.

Another object of the invention is to decrease exposure and damage to the palm of the hand from the blunt force of a rapidly moving ball striking the pocket of the glove.

Another object of the invention is to reduce the tendency of a ball to ricochet out of the web area of the glove.

A further object of the invention is to provide protection for the inside of the wrist from a thrown or batted ball.

In accordance with a preferred embodiment of the present invention, a fielding glove comprises an outer shell having at least one finger portion, a thumb portion, and a web joining the thumb portion and the nearest finger portion; at least one interior finger compartment designed to accommodate at least one finger positioned within the outer shell; and an interior thumb compartment designed to accommodate a thumb positioned within the outer shell where the angle between the interior thumb compartment and the nearest interior finger compartment is approximately 90 degrees.

In accordance with another preferred embodiment of the present invention, a fielding glove comprises an outer shell with two finger slots, and a thumb slot, with a web in the valley between the thumb and first finger, an interior mitten compartment that holds all four fingers, positioned and fixed within the outer shell at an angle of approximately 40 degrees in relation to the upright finger slots of the outer shell of the glove, and a fixed angle between the thumb and index finger position of the interior mitten of approximately 90 degrees.

In another embodiment, the fielding glove has a padded, flexible, contiguous extension of the palm heel of the aforementioned glove's outer shell that extends over the inside of the wrist.

In a further embodiment, the fielding glove has a billowing, flexible web attached between and slightly larger than the span between the thumb and first finger of the aforementioned outer shell.

Other objects and advantages of the present invention will become apparent from the following descriptions, taken in connection with the accompanying

drawings, wherein, by way of illustration and example, an embodiment of the present invention is disclosed.

FIG. 1 is a perspective view of a device 100 in a first state. The device 100 includes a base 110 and a top 120. The base 110 has a front edge 112 and a rear edge 114. The top 120 is positioned above the base 110 and has a front edge 122 and a rear edge 124. A hinge 130 is located between the base 110 and the top 120, allowing the top 120 to pivot relative to the base 110. The device 100 is shown in a first state where the top 120 is open, revealing an interior space 140. The interior space 140 is defined by the base 110 and the top 120. The device 100 is further configured to be in a second state where the top 120 is closed, covering the interior space 140. The device 100 is shown in a perspective view, but it may be a top view, a side view, or a cross-sectional view. The device 100 is shown in a perspective view, but it may be a top view, a side view, or a cross-sectional view. The device 100 is shown in a perspective view, but it may be a top view, a side view, or a cross-sectional view.

BRIEF DESCRIPTION OF THE DRAWINGS

The drawings constitute a part of this specification and include exemplary embodiments to the invention, which may be embodied in various forms. It is to be understood that in some instances various aspects of the invention may be shown exaggerated or enlarged to facilitate an understanding of the invention.

Figure 1 is a partially cut-away perspective view of the back side of the ergonomic fielding glove according to a preferred embodiment of the present invention.

Figure 2 is a perspective view of the front side of the embodiment of Figure 2.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Detailed descriptions of the preferred embodiment are provided herein. It is to be understood, however, that the present invention may be embodied in various forms. Therefore, specific details disclosed herein are not to be interpreted as limiting, but rather as a basis for the claims and as a representative basis for teaching one skilled in the art to employ the present invention in virtually any appropriately detailed system, structure or manner.

The following description of the preferred embodiment is for a right-handed person having the fielding glove on the left hand. It will be appreciated that the invention may be adapted to a left-handed person having the fielding glove on the right hand.

As the preferred embodiment shown in Figure 1, the geometry of the hand's position within the outer shell 17 of the fielding glove is realigned from that of the conventional glove design. The number of finger slots in the outer shell of the glove has been reduced, and in the illustrated embodiment is two. A separate mitten shaped finger compartment 16 inside the outer shell is designed to accommodate the fingers and is aligned at an angle of approximately 40 degrees in relation to the two upright finger slots 10, 11 of the glove's outer shell. The fingers of the hand are positioned inside the outer glove, within the mitten 17 and shown in Figure 1 by the dotted lines. The angle between the thumb and index finger in the mitten is approximately 90 degrees. When they close, all four fingers of the hand are moving towards the thumb and vice-versa. This movement closes the outer edge of the

outer shell outside finger 10 towards the outer edge of the outer shell thumb 12 with approximately 4 times the closing pressure of a conventional baseball/softball fielding glove. This improvement in closing leverage, reduces the tendency of the ball to escape the glove when catching a thrown or hit ball, or when applying a tag to a base runner. The more force applied to closure the less likely the ball will pop loose.

The angle between the thumb and index finger within the ergonomic fielding glove is increased from approximately 55 degrees in a traditional baseball/softball glove to approximately 90 degrees. The increased angle between the thumb and index finger within the interior mitten, as well as the fact that all four fingers are now closed together rather than widely separated by the individual finger slots of a traditional glove, increases the area of the pocket where there will be no impact on the hand.

This new ergonomic design increases the volume of the pocket and web area, and reduces the surface area that exposes the palm and fingers to damage from a high velocity, hard ball striking the palm in the pocket of the glove by approximately 30%. The potential damage to the palm or fingers of the hand is greatly lessened. This design reduces the tendency of the ball impacting and damaging the palm of the hand or the fingers because there is additional room to catch the ball within the web and pocket area where the palm is not exposed.

Turning to the billowing web15 in the preferred embodiment, it has a star shape with a central disk 14 and strands that radiate out to the interior edges of the outer shell thumb and first finger. The star web also has s a bridge of material 13

that spans the upper edge of the thumb and first finger. It could also employ a standard web drawn from the many varieties in the public domain. The billowing web 15 allows for a netting effect to trap the ball and reduce ricochet. The billowing is accomplished by making the web 15 of a flexible material slightly larger than the space within the plane between the first finger of the outer shell and the thumb. The star web 15 would have a donut shaped ring 14 of leather or other appropriate material in the center of the web, with the legs of the web being a leather or other appropriate material that looped around the donut, then radiated back to the edges of the glove in a star pattern.

The lower heel area of the glove is expanded by adding a flap 18 of padded leather or other material, that covers the inside wrist area below the palm. This preferred embodiment is a contiguous extension of the heel of the outer shell held in place when the glove is worn, by an adjustable strap 19 that wraps around the wrist.

The strap is fastened by a hook and loop fastener, or a velcro fastener or other appropriate mechanism

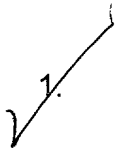
In the preferred embodiment as displayed, **within the thumb slot of the mitten is an adjustable thumb strap 19 of leather or other appropriate material for added leverage and comfort of a particular size hand. A similar strap is located on the outer edge of the mitten compartment 18 to accommodate one or more fingers for a similar purpose as described for the thumb. In the preferred embodiment, it is shown enclosing the third and fourth fingers.**

While the invention has been described in connection with a preferred embodiment, it is not intended to limit the scope of the invention to the particular

form set forth, but on the contrary, it is intended to cover such alternatives, modifications, and equivalents as may be included within the spirit and scope of the invention as defined by the appended claims.

CLAIMS

What is claimed is:



A fielding glove comprising:

an outer shell having at least one finger portion, a thumb portion, and a web joining the thumb portion and the nearest finger portion;

at least one interior finger compartment designed to accommodate at least one finger positioned within the outer shell; and

an interior thumb compartment designed to accommodate a thumb positioned within the outer shell;

where the angle between the interior thumb compartment and the nearest interior finger compartment is approximately 90 degrees.

2. A fielding glove as claimed in claim 1 wherein at least one interior finger compartment is designed to accommodate all four fingers.

3. A fielding glove as claimed in claim 1 wherein the outer shell has an extension that extends over the inside of the wrist and is held in place by a wrist strap.

4. a fielding glove as claimed in claim 3 wherein the extension is a separate padded leather piece or other appropriate material.

5. A fielding glove as claimed in claim 1 wherein the web is slightly larger than the span between the thumb and nearest finger of the outer shell.

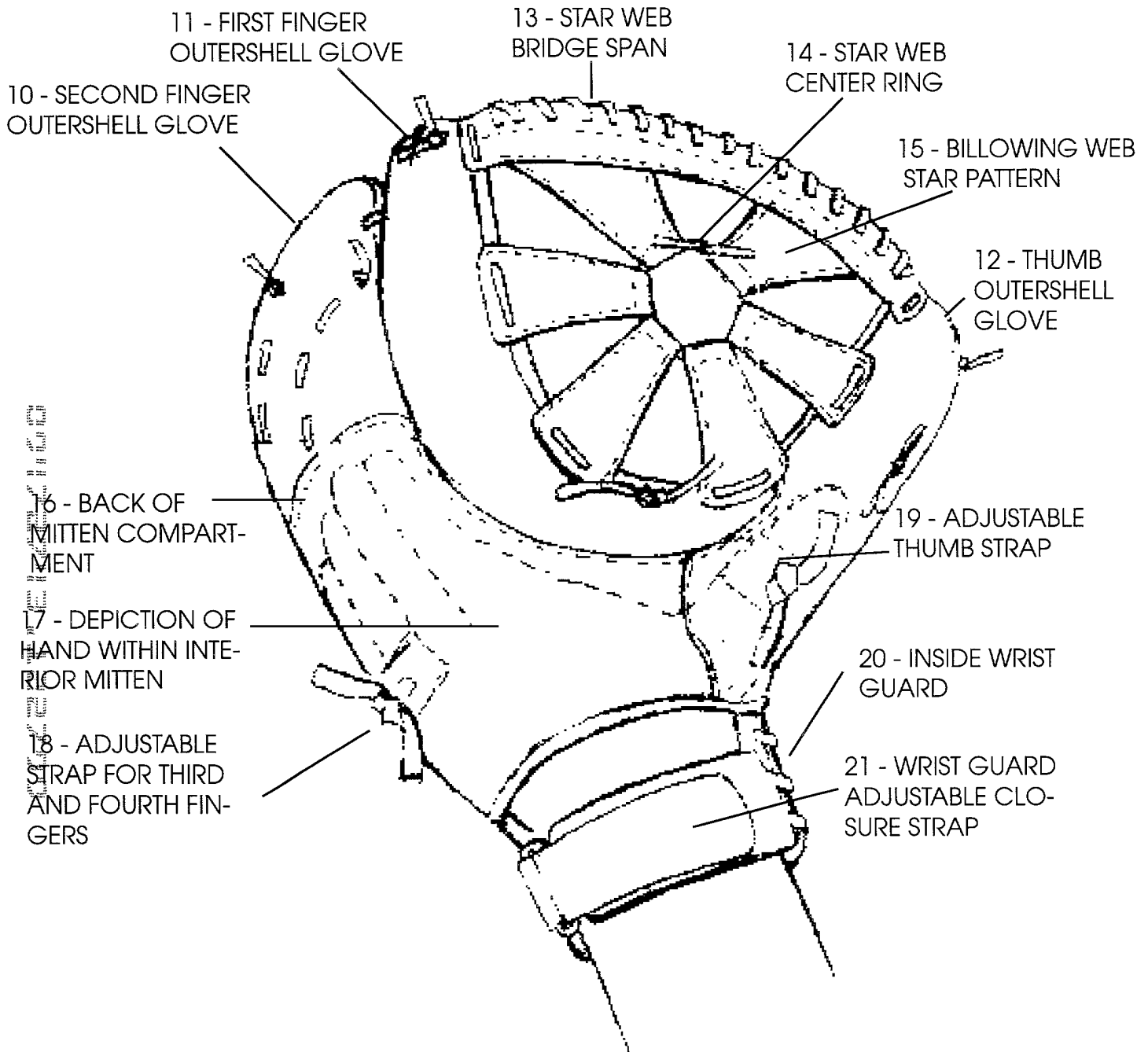
6. An apparatus as claimed in claim 5 wherein said web comprises a donut shaped disk centered in the aforementioned valley between the thumb slot and nearest finger slot, with straps attached to the disk that radiate out from the circumference of the disk in a star pattern attaching to various points along the edges of the aforementioned thumb and index finger and to a strap the bridges the tips of the thumb and nearest finger.

7. An apparatus as claimed in claim 5 wherein said web conforms to the curved plane in the space between the thumb and nearest finger.

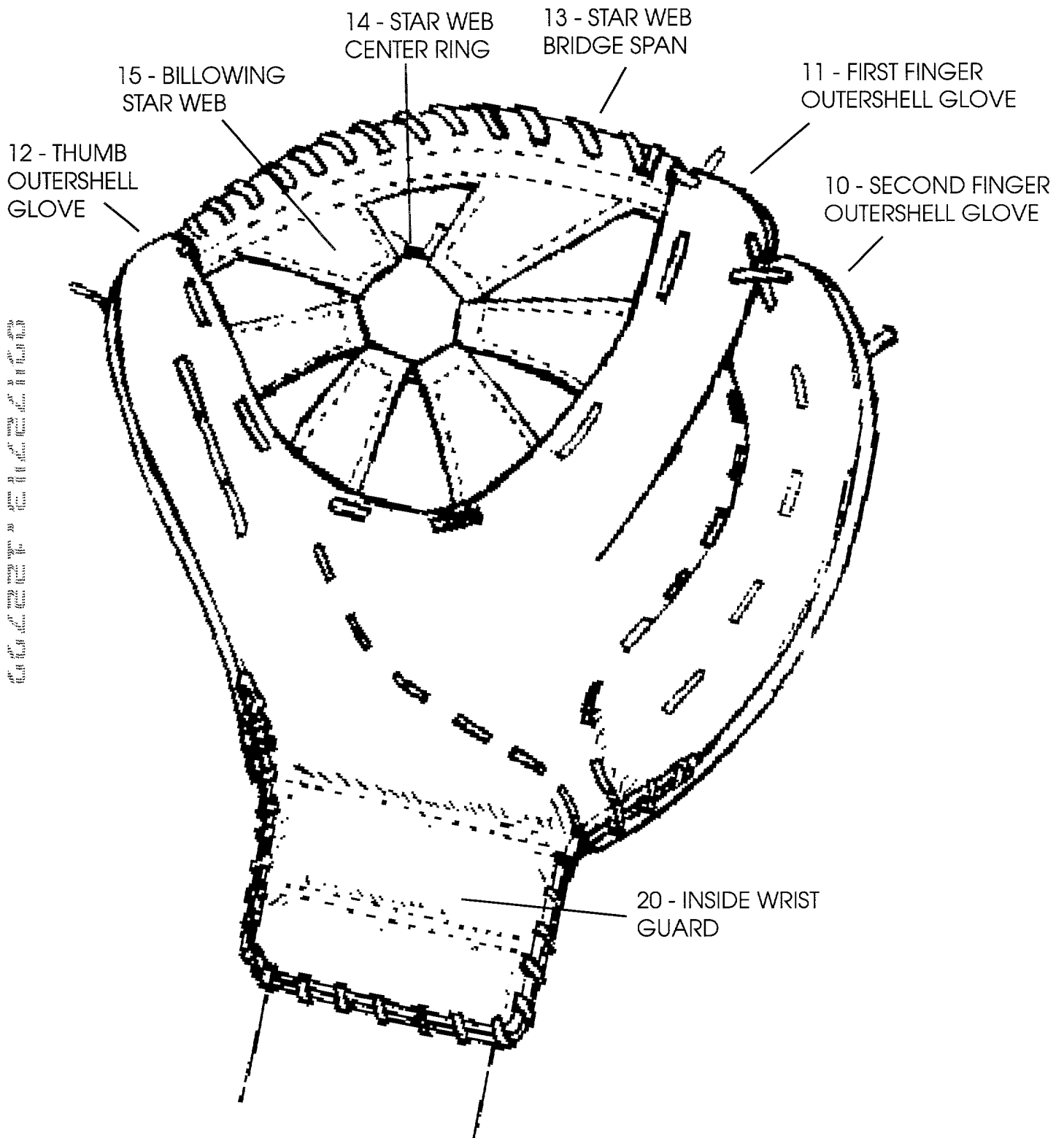
ABSTRACT OF THE DISCLOSURE


A fielding glove has an outer shell having at least one finger portion, a thumb portion, and a web joining the thumb portion and the nearest finger portion; at least one interior finger compartment designed to accommodate at least one finger positioned within the outer shell; and an interior thumb compartment designed to accommodate a thumb positioned within the outer shell; where the angle between the interior thumb compartment and the nearest interior finger compartment is approximately 90 degrees. The interior finger compartment may be designed to accommodate all four fingers and the outer shell has two finger portions. There is also wrist protection provided.

ERGONOMIC FILEDING GLOVE
FIGURE 1
PARTIALLY CUT AWAY PERSPECTIVE - BACK SIDE



ERGONOMIC FILING GLOVE
FIGURE 2
PERSPECTIVE VIEW - FRONT SIDE



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DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION

☒ Declaration Submitted with Initial Filing OR ☐ Declaration Submitted after Initial Filing

Attorney Docket Number

First Named Inventor

ROBERT M. FOUS

COMPLETE IF KNOWN

Application Number

Filing Date

Group Art Unit

Examiner Name

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

ERGONOMIC FIELDING GLOVE

(Title of the Invention)

the specification of which

☒ is attached hereto
OR

☐ was filed on (MM/DD/YYYY)

as United States Application Number or PCT International

Application Number

and was amended on (MM/DD/YYYY)

(if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37 Code of Federal Regulations, § 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code §119 (a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or §365 (a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.

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				YES	NO
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☐ Additional foreign application numbers are listed on a supplemental priority sheet attached hereto:

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Application Number(s)	Filing Date (MM/DD/YYYY)	<input type="checkbox"/> Additional provisional application numbers are listed on a supplemental priority sheet attached hereto.
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DECLARATION

I hereby claim the benefit under Title 35, United States Code §120 of any United States application(s), or §365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code §112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations §1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application.

U.S. Parent Application Number	PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number (if applicable)

☐ Additional U.S. or PCT international application numbers are listed on a supplemental priority sheet attached hereto.

As a named inventor, I hereby appoint the following registered practitioner(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Name	Registration Number	Name	Registration Number

☐ Additional registered practitioner(s) named on a supplemental sheet attached hereto.

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City	EUGENE	State	OR
Country	USA	Telephone	541-242-1036
		Fax	541-242-1036
		ZIP	97403

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name of Sole or First inventor: ☐ A petition has been filed for this unsigned inventor

Given Name	ROBERT	Middle Initial	M	Family Name	FOUS	Suffix e.g. Jr.	
Inventor's Signature	R M Fous				Date	12/22/99	

Residence: City	EUGENE	State	OR	Country	USA	Citizenship	USA
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☐ Additional inventors are being named on supplemental sheet(s) attached hereto